

WHAT IS CLAIMED IS:

1. A method of selecting devices for an air blow system by using a programmed computer, said method comprising the steps of:

5       inputting a nozzle diameter, a work distance, and either one of a nozzle immediately upstream pressure and a blow impact pressure in a present state as present state values;

          computing a compressed air consumption flow rate and  
10       either one of a blow impact pressure and a nozzle immediately upstream pressure from the present state values;

          inputting an improvement value of either one of the nozzle diameter and the nozzle immediately upstream  
15       pressure on a basis of a judgment on computation results; and

          computing a compressed air consumption flow rate and either one of a nozzle immediately upstream pressure and a nozzle diameter from the improvement value a necessary  
20       number of times, thereby selecting a nozzle diameter and a nozzle immediately upstream pressure that provide a lowest compressed air consumption flow rate.

2. A method of selecting devices for an air blow system by using a programmed computer, said method  
25       comprising the steps of:

          inputting ① a nozzle diameter, ② a number of nozzles, ③ one of a nozzle immediately upstream pressure, a blow impact pressure, and a pressure-reducing valve secondary

pressure, ④ either one of a composite sonic conductance and a composite effective sectional area, ⑤ a piping material, and ⑥ a pipe length in a present state as present state values;

5           inputting either one of an upstream pressure loss and a conductance ratio as a set value used as a reference when a recommended circuit is selected; and

          computing an upstream pressure loss and a conductance ratio in the present state from the present  
10 state values and the set value.

3. The method of claim 2, further comprising the steps of:

          computing, when the computed upstream pressure loss or conductance ratio in the present state does not satisfy  
15 the set value, a recommended circuit electromagnetic valve sonic conductance and a recommended circuit pipe inner diameter that satisfy the set value; and

          selecting upstream piping system devices and a pressure-reducing valve that are conformable to the  
20 computed recommended circuit electromagnetic valve sonic conductance and recommended circuit pipe inner diameter.

4. A method of selecting devices for an air blow system by using a programmed computer, said method comprising the steps of:

25           inputting a nozzle diameter, a number of nozzles, and either one of a nozzle immediately upstream pressure and a blow impact pressure in a new system as new values;  
          inputting either one of an upstream pressure loss

and a conductance ratio as a set value used as a reference when a recommended circuit is selected;

computing a recommended circuit electromagnetic valve sonic conductance and a recommended circuit pipe inner diameter that satisfy the set value from the new values and the set value; and

selecting upstream piping system devices and a pressure-reducing valve that are conformable to the computed recommended circuit electromagnetic valve sonic conductance and recommended circuit pipe inner diameter.

5. A recording medium storing a program for selecting devices for an air blow system by using a computer, said program comprising the steps of:

inputting a nozzle diameter, a work distance, and either one of a nozzle immediately upstream pressure and a blow impact pressure in a present state as present state values;

computing a compressed air consumption flow rate and either one of a blow impact pressure and a nozzle immediately upstream pressure from the present state values;

inputting an improvement value of either one of the nozzle diameter and the nozzle immediately upstream pressure on a basis of a judgment on computation results; and

computing a compressed air consumption flow rate and either one of a nozzle immediately upstream pressure and a nozzle diameter from the improvement value a necessary

number of times, thereby selecting a nozzle diameter and a nozzle immediately upstream pressure that provide a lowest compressed air consumption flow rate.

6. A recording medium storing a program for  
5 selecting devices for an air blow system by using a computer, said program comprising the steps of:

inputting ① a nozzle diameter, ② a number of nozzles,  
③ one of a nozzle immediately upstream pressure, a blow  
10 impact pressure, and a pressure-reducing valve secondary pressure, ④ either one of a composite sonic conductance and a composite effective sectional area, ⑤ a piping material, and ⑥ a pipe length in a present state as present state values;

inputting either one of an upstream pressure loss  
15 and a conductance ratio as a set value used as a reference when a recommended circuit is selected; and

computing an upstream pressure loss and a  
conductance ratio in the present state from the present  
state values and the set value.

20 7. The recording medium of claim 6, wherein said program further comprises the steps of:

computing, when the computed upstream pressure loss  
or conductance ratio in the present state does not satisfy  
the set value, a recommended circuit electromagnetic valve  
25 sonic conductance and a recommended circuit pipe inner diameter that satisfy the set value; and

selecting upstream piping system devices and a  
pressure-reducing valve that are conformable to the

computed recommended circuit electromagnetic valve sonic conductance and recommended circuit pipe inner diameter.

8. A recording medium storing a program for selecting devices for an air blow system by using a
- 5 computer, said program comprising the steps of:
- inputting a nozzle diameter, a number of nozzles, and either one of a nozzle immediately upstream pressure and a blow impact pressure in a new system as new values;
  - inputting either one of an upstream pressure loss
  - 10 and a conductance ratio as a set value used as a reference when a recommended circuit is selected;
  - computing a recommended circuit electromagnetic valve sonic conductance and a recommended circuit pipe inner diameter that satisfy the set value from the new
  - 15 values and the set value; and
  - selecting upstream piping system devices and a pressure-reducing valve that are conformable to the computed recommended circuit electromagnetic valve sonic conductance and recommended circuit pipe inner diameter.